UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/512,576	02/24/2000	Richard Crump	2204/A12(BA375)	5786

2101	7590	01/15/2004

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EXAMINER
VU, THONG H

ART UNIT	PAPER NUMBER
2142	

DATE MAILED: 01/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>28 October 2003</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4 and 6-11* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4 and 6-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a)☐ All b)☐ Some * c)☐ None of:
   1.☐ Certified copies of the priority documents have been received.
   2.☐ Certified copies of the priority documents have been received in Application No. _____.
   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
       application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)
   since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.
   37 CFR 1.78.
   a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific
   reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.

4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

1.   Claims 1-4,6-11 are pending.

Response to Arguments

2.   Applicant argues the prior art (Hellman-Benning) did not teach creating a single virtual circuit for the connection-oriented client on the communication channel, wherein the virtual circuit is the only virtual circuit on the communication channel. Hellman-Benning did not teach the only single virtual circuit on the communication channel. Examiner notes the previous prior art does not contain this limitation. However these limitations have been taught by the new prior art (i.e.:Byrne, col5 lines 50-55;Hellman, col 2 lines 28-48;Harris, col 3 lines 40-47;Biber, abstract).Therefore it moots to new ground of rejection wherein the rejection bases on the new prior art with the equivalent limitation as the invention claimed.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 6-7 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter (i.e.: The "logic" is merely a program per se).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-4,6-11 are rejected under 35 U.S.C. § 103 as being unpatentable over

Hellman et al [Hellman 6,064,648] in view of Benning et al [Benning 5,917,823].

As per claim 1, Hellman discloses a method for binding a connection-oriented

client to a communication channel, the method comprising:

creating a communication channel for the connection-oriented client (i.e.: X.25,

ATM), the communication channel having a channel identifier (i.e.: the data link

connection identifier) [Hellman, x.25, DLCI and a single virtual channel, col 2 lines 28-

48];

creating a single virtual circuit for the connection-oriented client on the

communication channel, wherein the virtual circuit is the only virtual circuit on the

communication channel [Hellman, a single virtual channel, col 2 lines 28-48]; a single

virtual connection or single logical link over a connection was well-known in the art [see

Harris, col 3 lines 40-47;Biber, abstract]

and forwarding data received from the communication channel to the connection-

oriented client based upon the channel identifier [Hellman, FECN, col 2 lines 28-48].

However Hellman did not detail binding the communication channel to the

connection-oriented client based upon the channel identifier. A skilled artisan would

have motivation to modify the communication process on a connection-oriented network

and found Benning teaching. Benning taught a routing software for X.25 engine

established permanent virtual connection by using the X.25 packets with a connection

identifier [Benning col 10 lines 5-17] wherein the driver provides a call setup and binds

the two end of the virtual circuit [Benning, col 4 lines 50-65]

Therefore, it would have been obvious to one having ordinary skill in the art at

the time the invention was made to incorporate the routing software which provides

X.25 packet with a channel/connection identifier on router or client device as taught by

Benning into the Hellman's apparatus in order to utilize the connection identifier. Doing

so would provide a quick, simple and reliable access for storing, routing and retrieving

multimedia data over the connection oriented network.

4.   Claims 6,8,10 contain the similar limitations set forth of apparatus claim 1.

Therefore, claims 6,8,10 are rejected for the similar rationale set forth in claim 1.

5.   As per claim 2, Hellman-Benning disclose the communication channel is an X.25

logical channel [Hellman col 2 lines 6-27], and wherein the channel identifier is an X.25

channel identifier [Benning col10 lines 5-17].

6.   As per claim 3, Hellman-Benning disclose binding the communication channel to

the connection-oriented client [Hellman col 2 lines 6-27] based upon the channel

identifier comprises including the channel identifier in binding messages [Benning col10

lines 5-17].

7.   As per claim 4, Hellman-Benning disclose forwarding data by the connection

oriented client over the communication channel [Hellman, FECN, col 2 lines 28-48]

based upon the channel identifier [Benning col10 lines 5-17].

8.   As per claim 5, Hellman-Benning disclose forwarding data from the

communication channel to the connection-oriented client [Hellman, FECN, col 2 lines

28-48] based upon the channel identifier [Benning col10 lines 5-17].

9.   As per claim 7, Hellman-Benning disclose the driver logic includes X.25 logic for

creating an X.25 communication channel having an X.25 channel identifier [Benning

col10 lines 5-17], and wherein the binding logic binds the connection-oriented client and

the X.25 communication channel using the X.25 channel identifier [Benning col10 lines

5-17].

10.   As per claim 9, Hellman-Benning disclose the driver logic includes X.25 logic for

creating an X.25 communication channel having an X.25 channel identifier [Benning

col10 lines 5-17], and wherein the binding logic binds the connection-oriented client and

the X.25 communication channel using the X.25 channel identifier [Benning col10 lines

5-17].

11.   As per claim 11, Hellman-Benning disclose a method comprising:

registering to receive a call by a connection-oriented client [Hellman, a list of

DLCI values, col 5 lines 9-17];

receiving a call by a driver [driver, Benning col 4 lines 49-53];

creating a channel by the driver, the channel having a channel identifier [Benning

col10 lines 5-17];

creating a single virtual circuit for the connection-oriented client on the

communication channel, wherein the virtual circuit is the only virtual circuit on the

communication channel [Hellman, a single virtual channel, col 2 lines 28-48];

binding the channel to the connection-oriented client based upon the channel

identifier [Benning col10 lines 5-17]

forwarding data received from the communication channel to the connection-

oriented client based upon the channel identifier [Hellman, FECN, col 2 lines 28-48].

12.   Claims 1-4,6-11 are rejected under 35 U.S.C. § 103 as being unpatentable over

Pajuvirta et al [Pajuvirta 5,970,048] in view of Byrne [Byrne 6,229,787 B1]

13.   As per claim 1, Pajuvirta discloses a method for binding a connection-oriented

client to a communication channel, the method comprising:

creating a communication channel for the connection-oriented client [Pajuvirta,

X.25, col 1 lines 33-57], the communication channel having a channel identifier (i.e.: the

data link connection identifier) [Pajuvirta, DLCI and a single virtual channel, col 3 line

46-col 4 line 13];

creating a single virtual circuit for the connection-oriented client on the communication channel, wherein the virtual circuit is the only virtual circuit on the communication channel [Pajuvirta, DLCI and a single virtual channel, col 3 line 46-col 4 line 13]

and binding the communication channel to the connection-oriented client based upon the channel identifier [Pajuvirta, binding the degree of severity of congestion notifications to the fill rate of respective ones of said buffers at a respective said node, col 9 lines 7-15; it is obvious the notification provides the data link connection identifier or channel identifier, col 5 lines 30-44].

However Pajuvirta did not detail forwarding data received from the communication channel to the connection-oriented client based upon the channel identifier. A skilled artisan would have motivation to modify the communication process on a connection-oriented network and found Byrne teaching. Byrne taught a connection oriented network such as ATM provides a binding between user and server using only a single virtual connection [Byrne Fig 3, col 4 lines 15-17, col 5 lines 50-55] wherein the binding process using a forwarding table [Byrne, col 6 lines 11-30]

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the software which provides the bindgin process which forward data to client by using the the single virtual connection as taught by Byrne into the Pajuvirta's apparatus in order to utilize the connection identifier. Doing so would provide a quick, simple and reliable access for storing, routing and retrieving multimedia data over the connection oriented network.

14.   Claims 6,8,10 contain the similar limitations set forth of apparatus claim 1.

Therefore, claims 6,8,10 are rejected for the similar rationale set forth in claim 1.

15.   As per claim 2, Pajuvirta-Byrne disclose the communication channel is an X.25

logical channel [Pajuvirta, X.25, col 1 lines 33-57], and wherein the channel identifier is

an X.25 channel identifier [Pajuvirta, DLCI and a single virtual channel, col 3 line 46-col

4 line 13].

16.   As per claim 3, Pajuvirta-Benning disclose binding the communication channel to

the connection-oriented client [Pajuvirta, X.25, col 1 lines 33-57] based upon the

channel identifier comprises including the channel identifier in binding messages

[Pajuvirta, binding, col 9 lines 7-15].

17.   As per claim 4, Pajuvirta-Byrne disclose forwarding data by the connection

oriented client over the communication channel [Pajuvirta, FECN, col 2 lines 28-48]

based upon the channel identifier [Pajuvirta, DLCI and a single virtual channel, col 3 line

46-col 4 line 13].

18.   As per claim 5, Pajuvirta-Byrne disclose forwarding data from the communication

channel to the connection-oriented client based upon the channel identifier [Pajuvirta,

DLCI and a single virtual channel, col 3 line 46-col 4 line 13].

19.   As per claim 7, Pajuvirta-Byrne disclose the driver logic includes X.25 logic for

creating an X.25 communication channel having an X.25 channel identifier and wherein

the binding logic binds the connection-oriented client and the X.25 communication

channel using the X.25 channel identifier [Pajuvirta, DLCI and a single virtual channel,

col 3 line 46-col 4 line 13].

20.   As per claim 9, Pajuvirta-Byrne disclose the driver logic includes X.25 logic for

creating an X.25 communication channel having an X.25 channel identifier and wherein

the binding logic binds the connection-oriented client and the X.25 communication

channel using the X.25 channel identifier [Pajuvirta, DLCI and a single virtual channel,

col 3 line 46-col 4 line 13].

21.   As per claim 11, Pajuvirta-Byrne disclose a method comprising:

       registering to receive a call by a connection-oriented client [Byrne, updating

connection table, col 7 lines 55-57];

       receiving a call by a driver [Pajuvirta, binding, col 9 lines 7-15];

       creating a channel by the driver, the channel having a channel identifier

[Pajuvirta, DLCI and a single virtual channel, col 3 line 46-col 4 line 13];

       creating a single virtual circuit for the connection-oriented client on the

communication channel, wherein the virtual circuit is the only virtual circuit on the

communication channel [Pajuvirta, DLCI and a single virtual channel, col 3 line 46-col 4

line 13];

binding the channel to the connection-oriented client based upon the channel

identifier [Pajuvirta, binding, col 9 lines 7-15]

forwarding data received from the communication channel to the connection-

oriented client based upon the channel identifier [Byrne, col 6 lines 11-30].

22.   Any inquiry concerning this communication or earlier communications from the
examiner should be directed to examiner Thong Vu, whose telephone number is (703)-
305-4643.
The examiner can normally be reached on Monday-Thursday from 8:00AM- 4:30PM.
      If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, *Jack Harvey*, can be reached at (703) 305-9705.
      Any inquiry of a general nature or relating to the status of this application should
be directed to the Group receptionist whose telephone number is (703) 305-9700.
      Any response to this action should be mailed to: Commissioner of Patent and
Trademarks, Washington, D.C. 20231 or faxed to :
                        After Final   (703) 746-7238
                        Official: (703) 746-7239
                        Non-Official   (703) 746-7240
      Hand-delivered responses should be brought to Crystal Park 11,2121 Crystal
Drive, Arlington. VA., Sixth Floor (Receptionist).

Thong Vu
Patent Examiner
Art Unit 2142

JACK B. HARVEY
SUPERVISORY PATENT EXAMINER